"INDIVIDUAL INCOME AND THE LEVEL OF EDUCATION IN INDONESIA"

THESIS

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بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْمِ

In the name of Allah, the Most Gracious, the Most Merciful

There is no deity except Him, the ever living, the sustainer of [all] existence. Neither drowsiness overtakes Him nor sleep. To Him belongs whatever is in the heavens and whatever is on the earth. Who is it that can intercede with Him except by His permission? He knows what is [presently] before them and what will be after them, and they encompass not a thing of His knowledge except for what He wills. His Kursi extends over the heavens and the earth, and their preservation tires Him not. And He is the Most High, the Most Great. (2S. Al-Baqarah : 255)

And We charge no soul except [with that within] its capacity, and with Us is a record which speaks with truth; and they will not be wronged (2S. Al Mu'minun:62)

For each one are successive [angels] before and behind him who protect him by the decree of Allah . Indeed, Allah will not change the condition of a people until they change what is in themselves. And when Allah intends for a people ill, there is no repelling it. And there is not for them besides Him any patron. (2S. Ar Ra'du:11)

FACULTY OF ECONOMICS
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I the undersigned hereby declare that the thesis with the title :

LEVEL EDUCATION OF INDIVIDUAL INCOME IN INDONESIA WITH PANEL REGRESSION

Is the result of my work, and there is no part or whole article containing the pharase, and idea, or deriving from other sources without giving recognition to the original author. As for the part that comes from the work of the original authors have included the source in accordance with the norms, ethics, rules of scientific writing. If later found *plagiarism* in this thesis, I am willing to accept the sanction of revocation of academic degree which I have gained

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INDIVIDUAL INCOME AND THE LEVEL

OF EDUCATION IN INDONESIA

Thesis by : Eviana Maulidia

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ABSTRACT

The aim of this research is to analyze the effect level education on income in Indonesia during 2003-2013. This research using secondary data from Ministry of Finance and Central Bureau Statistic of Indonesia. By using panel estimation method the level of education on individual income has a significant and positive relation in each provinces in Indonesia. In this study I divide level of education become primary, junior high school, senior high school, and college. The result of regression show that every increase one level of education will make individual income increase also, and every decrease one level of education will make individual income decrease also.

Keywords: individual income, level of education

This thesis has been presented in the thesis examination and succesfully passed the thesis examination on Oktober 27, 2015. The abstract has been approved by the advisor and the examiners :

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PREFACE

بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْمِ

All praise to be on Allah SWT, Lord of the world. The writer would like thanks to Allah SWT for its guidance and mercy therefore my thesis entitled **"Level Education of Individual Income in Indonesia with Panel Regression"** has finally been accomplished on time without matter problem. This thesis is submitted as a partial requirement to acquire Bachelor Degree at Economics Department of Economics Faculty of Andalas University.

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LIST OF CONTENTS

LIST OF TABLE

LIST OF FIGURE

CHAPTER I

INTRODUCTION

1.1 Background

Individual income is basically the result of individual effort in collecting the money used to meet the needs of the individual life every day. Income is closely related to the economic growth of the region, which is important for the individual themselves. Increase of individual income can cause changes in regional income which is likely to be increased.

Individual income represents the value of all goods and services produced by an enterprise in certain period, and the total amount of money received by a person or household over a certain period (usually one year), income consists of wages, or the acceptance of employment, income of wealth such as rent, interest and dividends, as well as the payment or receipt of government transfers such as social security or unemployment insurance.

This individual income levels, caused by various factors, one of the factors that affect an individual's income is the level of education. One way to improve the quality of human resources is through education. Article 31 of the 1945 Constitution states that every citizen has the right to education, and government should support the national education system.

According to strategic role of education is justified by Becker (1993) in the theory of Human Capital. Becker childhood training and education activities will affect the level of productivity and income. Education is seen

as an investment that aims to improve human resources. Productivity will not present itself, but will be born through the educational process carried out with appropriate and effective way. In line with the view of Becker (1993), Fegerlin and Saha (1986) stated that education and income have a significant effect on economic development. Human resource is considered the most decisive, because the range of skills and motivation can only be built through education.

According to Simanjuntak (1998) basic assumption of human capital theory is a person can increase revenue by increasing the education, every additional one school year, means the ability of a person's employment and income levels will be improve, but this delays receipt of income for one year in school attendance.

The relation between education and economic development results can be seen through human resources development as an executor. Improving the quality of the education sector generated resources will also grow well and is expected to accelerate economic growth (Suryadi, 1995). So education is a factor that affects the level of education in Indonesia. This paper will demonstrate how education can affect the level of income. Highly educated people have a great chance to earn a great income as well, however, low educated people do not necessarily have low income level. The data that support this paper is net enrollment rate, net enrollment rate is the data that process by BPS (Badan Pusat Statistik), and have the level of education, the data comes from the total of people divide by the people that going to school, And the other data is income rate each province in

Indonesia, the data process by SUSENAS. The data comes from the average of the income in each provinces in Indonesia.

Based on this background, authors are interested in researching the impacts and influences of income level, where the author will see the effect of education on income and other factors include, namely gender by lifting it in a scientific paper entitled: ***"level education of individual income in Indonesia with panel regression".***

1.2 Limitation of the Study

In Indonesia, there are several levels of education in elementary school, middle school, high school and university. So in this study will discuss how each level education affects individual income in each province in Indonesia, also in this study will discuss how income can influence province in Indonesia with high level of education.

1.3 Problem Formulation

Indonesia's labor market is dualistic, there is excessive job offers because it does not suit the tastes of the labor market, and on the other hand there is excess demand where there are certain qualifications graduates are scarce in number (Aris Ananta, 19191)

The problem increasingly supported by at least the number of available jobs, ideally responsibilities of the job market is how to absorb the labor of - magnitude. In controlling educational needs cooperation from all parties, between household (people) and the government who have to

provide the facilities and infrastructure to achieve optimal result. On the other hand, households play an important role because it must take into a count the costs and benefits of such education, households will bear the cost of individual's education and also the benefit from the education.

Based on the explanation above, the author tries to formulate the issues to be discussed are as follows:

a. How type of education affects income earned by a person/individual
b. Which provinces in Indonesia that influence the level of education and income

1.4 Objectives and Benefits Research

This study aims to produce estimation of the level that would be acceptable as individual revenue from investing in education. More specifically, this study aims to:

a. Researching what level of education is more profitable in terms of individual income.
b. Researching what province that can influence by income, with the high level of education.

1.5 Hypothesis

The hypotheses in this study that will be presented are as follows:

a. Anticipated income is influenced by the level of education

b. Anticipated income levels are highly educated individuals is greater than the individual income people with low education.

1.6 Systematics Writing

CHAPTER I: INTRODUCTION

This chapter will describe the background of the problem, barring problems, the formulation of the problem, objectives and benefits of the research, hypothesis, and systematic writing.

CHAPTER II: LITERATURE REVIEW

This chapter presented the theoretical study that systematically outlines the theory that can be used as a reference in discussing the problems of this study.

CHAPTER III : OVERVIEW OF INDONESIAN INCOME AND LEVEL EDUCATION

This chapter will describe the general description of each provinces of Indonesia, among others, regarding the geography, demography and characteristics of the study variables.

CHAPTER IV: THEORITICAL FRAMEWORK & METHODOLOGY

This chapter describes the model to be used, the population and sample, data sources and the definition of operational and data analysis techniques.

CHAPTER V: RESULTS AND DISCUSSION

This chapter will describe the results of research and discussion.

CHAPTER VI: CONCLUSIONS AND RECOMMENDATIONS

This chapter will describe the conclusions and also giving suggestions for improvement in the future.

CHAPTER II

LITERATURE REVIEW

The essence of human resource development is education. Education is a form of investment in human resources that is not less important than physical capital investment. Various studies carried out in a number of countries suggests that education has a very significant contribution to economic growth. Schultz (1963) concluded that improving workforce education proved to explain a very large part of the growth of output in developed countries and developing countries (Emil Salim, 1993).

2.1 Cost of Education

The definition of education expenses is rupiah value of all resources (inputs) used for an educational activity. To quantify the cost of education there are two approaches, that can be used: the cost of money (money cost) and opportunity costs, (Nana Fattah 2008).

The cost of education money is the real cost of the resources used for the provision of education for future students, teachers and other education personnel, books, materials equipment, and buildings. All of these resources have alternative uses, if not used in the educational activities the resource can be used for other activities, such as health development, agricultural development, and so on. Because resources are limited, the use of resources for education means a loss of opportunity to use the resources of other activities. The value of the lost opportunity for the implementation

of other activities in economic terminology called opportunity costs (Levin, 1983).

There are many opinions about education classification. For example, Koch stated that the cost of education consists of,

a. The direct expenses of the student; direct expense of the student, is the cost incurred by the student directly to improve the teaching and learning process in order to benefit in the future. Like, with a good education the students are expected to receive revenue in accordance with an education that has been in the travel of students, as well as expense that have been incurred for the education of the students.
b. Direct expenditure from the public; Public spending on education includes direct expenditure on educational institutions as well as educational related public subsidies given to households and administrated by educational institutions. Public entities include ministries other than ministries of education, local and regional governments, and other public agencies. Public spending includes expenditure on schools, universities and other public and private institutions delivering or supporting educational services.
c. The lost revenue (earnings forgone) because of school; lost revenue because many school in the education system is not good, for example, revenue that is not handled well in the funding achieving students or students who are less capable.

d. Richardson describe the direct costs to the, Administrative expenses, instruction, and operation; administrative expenses, the expenses that an organization incurs not directly tied to a specific function such as manufacturing/production or sales. These expenses are related to the organization as a whole as opposed to an individual department; also referred to as "administrative cost'.

2.2 Human Capital Theory

Investment in human resource already introduced by Adam Smith, because he believes that humans will increase investment in economic growth. Human capital investment theory basically believes that the lifetime earnings of those with higher education will be greater than the lifetime earnings of those with lower education. In other words, investment in education and skills of human resources is beneficial. The advantage was picked not only by those who gain, but also picked by public (Riyanto TS, 1995).

In human capital theory, education is a form of human labor investment. Education is seen as something that has the ability to increase earning in the future. This theory also suggests that education has an influence on economic growth through increased labor productivity. The development of society starts from individual productivity. If each individual has a higher productivity due to education, then it will support the

economic growth of society. The prospect to earn a higher income, will someday affect individuals (households) to invest the time and costs for education.

The basic assumption of human capital theory is a person can increase their incomes through increasing the education (Simanjuntak PJ, 1991). As investment in the physical plane, the investment in education, which is seen as an investment of the cost for the education incurred, investment in human resources is the sacrificed amount of funds spent and the opportunity to earn income during the educational process takes place in which the reward income received is higher to achieve a higher level of consumption as well.

Ace Suryadi (1997) revealed that according to human capital theory are reflected in the skills, knowledge and work productivity. Furthermore, the model put forward that the investment in human resources do not have direct relationship between education indicators and economic indicators. The model has very important methodology in conducting investment analysis for education and decision making, which can help to decide between alternative and choose allocation of educational resources that are limited to be able to provide the highest capability.

2.3 Cost Benefit Analysis Techniques (Cost Benefit Analysis)

A cost benefit analysis is a form of investment appraisal that compares the costs and economic benefits of a project. Therefore, education

providers can be viewed as an investment as well as containing costs and benefits, cost benefit analysis can be applied in educational activities.

Cost benefit analysis is a measurement of the rate that return on investment or the future income stream derived from the capital. So, cost benefit analysis related to investment projects that demonstrate the level of return on capital that will come. If the money spent on education, training, and health services, which called as human capital investment, all investment income would increase during the life cycle (life time earnings). Labor relatively educated / skilled will be healthier than other workers that can cost benefit techniques to measure it.

Human capital investment will yield benefits for both the individual and social benefits, and society as a whole. The benefits that received by the public is the increasing in aggregate productivity gains including externalities.

2.4 Determinants of Wages

The definition of wages under the Act No. 13 of 2003 on employment is the right of workers / laborers received and expressed in terms of money as compensation from the employer or the employer to the worker / laborer is determined and paid under an employment agreement, agreements or legislation , including being supported to workers or workers and their families for a job and or services that have been done or will be made (Khakim, 2006).

According to Nakamura, et al (1979), there are two groups of factors that affect worker's wages, namely: 1) individual characteristics, 2) Characteristics of the labor market. Research on the micro level, it mostly focuses on the individual characteristics factors, while at the macro level is more concerned with the relations characteristic of the labor market wage rates.

From the research of Aris Ananta (1993) in East Java affected by education on income, it shows that the formation of a person's income is the level of education, age, working hours, and gender.

There are many years that have been spent by someone throughout formal education, starting from elementary, middle, high school and university. According Habibie (2004), education is a process by which a person can understand and have basic science and technology he needs to be skilled in a field.

Effect of level of education on the level of labor income is relatively large compared to the influence of other factors. This illustrates that the income or wages received by workers will be highly dependent on the quality of human capital owned by the workers. The higher or better quality of human capital owned by workers, higher productivity, wages or income or fringe benefits that workers receive from the results of his work are also getting bigger.

2.5 Empirical Reviews

From Behrman and Deolalikar concluded; first, the rate of return higher income individuals with higher levels of education, Second, the level of income by gender shows that female income levels greater than the level of male income. Third, the level of individual income on public education. Fourth, there is no difference in the rate of return of individual woman after a high scho education, but there are sharp differences in the male gender.

The same data is also processed by Deolalikar by analyzing the age of respondents, based on the analysis he concluded that age is positively related to the rate of return on the individual; the older workers receive the higher rate of return. This supports the notion that experience is positively related to the rate of return. For example, women who had not completed elementary school (SD) in the age of 50 years obtain the same rate of return with a woman of 20 years who had completed university. Another example, workers who did not complete primary school aged 60 years the rate of return of 10%, the same figure has been achieved by workers who had completed high school (10.5%), which means at the expense of time to obtain education up to high school graduation (12 years) can accelerate the increase in income at the same level of about 28 years, assuming an individual doing the work began at the age of 20 years.

Research by Boediono and colleagues (1992) conducted in 3 provinces in Indonesia, East Java, West Sumatra, and East Nusa Tenggara, the internal return levels are separated by type of secondary education,

government, and private sector, along with the distinction of public education, commercial, and techniques. Based on studies, Boediono et al concluded first, individual income and social levels greater in secondary vocational education. Second, the level of social income is higher than the level of individual income, except in the province of West Sumatra for general and vocational secondary education. Third, the individual income level for students who come from private schools is relatively higher compared to public schools (except in the engineering department). Fourth, the individual and social levels of the lowest income received on commercial secondary education, received the entire region.

Samuelson (2001) explains the differences in the level of wages or income. Income disparity is caused in two ways. The first is the difference in the quality of labor in which it is strongly influenced by the physical and mental ability, background, education, training and experience. Workers with good quality will earn relatively higher. The groups with higher levels of education enjoyed faster income growth than those who are less educated. The second is the difference in skill possessed uniqueness. An expert analysis of investment such as Warren Buffet or a basketball player like Michael Jordan earn income with a very large amount of expertise they offer.

Mark Blaug (1976) also describes the relationship between education and income. Blaugh stated that the labor market demand for better educated workers, higher than the demand for less-educated workers. The employer is willing to pay more for those who are highly educated, even

though they actually do not have special skills. This happened because they have a high perceived to have high motivation, self-confidence, more initiatives to solve a problem, more quickly adapt and have a responsibility. Rather they are considered more productive than those with less education.

Haris Fadilah his study conducted in West Sumatra in 2009 by using SUSENAS 2007, where the results of these studies are influenced by a person's income level; where the higher the level of income will also be higher or increased. In addition to the location of education, gender, and age also affect an individual's income people of each provinces in Indonesia. On gender, the male gender has a higher income than the income of the woman, while on location; people living in cities have greater income than the people who live in the village. Age also has an effect; people 40 years age group has the highest income compared to the age group below 40.

CHAPTER III

OVERVIEW OF INDONESIAN EDUCATION AND INCOME

3.1 Overview of Indonesia

Indonesia lies between latitudes 11°S and 6°N, and longitudes 95°E and 141°E. It consists of 17,508 islands, about 6,000 of which are inhabited. These are scattered over both sides of the equator. The largest are Java, Sumatra, Borneo (shared with Brunei and Malaysia), New Guinea (shared with Papua New Guinea), and Sulawesi. Indonesia shares land borders with Malaysia and Borneo, Papua New Guinea on the island of New Guinea, and East Timor on the island of Timor. Indonesia shares maritime borders across narrow straits with Singapore, Malaysia, the Philippines, and Palau to the north, and with Australia to the south. The capital, Jakarta, is on Java and is the nation's largest city, followed by Surabaya, Bandung, Medan, and Semarang.

At 1,919,440 square kilometers (741,050 sq mi), Indonesia is the world's 15th-largest country in terms of land area and world's 7th-largest country in terms of combined sea and land area. Its average population density is 134 people per square kilometer (347 per sq mi), 79th in the world, although Java, the world's most populous island, has a population density of 940 people per square kilometer (2,435 per sq mi).

Based on the results of the 2010 Population Census enumeration, Indonesia's population is 237,556,363 which consist 119,507,580 men and 118,048,783 women. This result increased by 32.5 million since 2000. That

is, each year during the period 2000-2010, the total population increased 3.25 million. Each month of Indonesia's population increased by 270 833 inhabitants or 0.27 million people. Then, every day of Indonesia's population increased by 9027 people. And every hour the accretion population is 377 inhabitants. In fact, every second the growth number of population is as much as 1.04 (1-2 persons). Population growth in Indonesia in general (it can even be said 99.9 percent) due to the birth, the rest of the in-migration. Thus it can be concluded that in 1 second in Indonesia occurred birth of 1-2 people.

Indonesia's population is calculated based on the amount of the entire region. The population of Indonesia from year to year increase continually with higher growth rates. The population of Indonesia from the year 1971-2010 and the growth can be seen in the following table.

Table 3.1

Indonesian Population of 1971, 1980, 1990, 2000 and 2010 (Million People)

Year	1971	1980	1990	2000	2010
Population	119,2	147,5	179,4	205,1	237,6

Source: bps.go.id

Table 3.2

Population Growth Rate Indonesia Year 1971-2010 (Percent)

Periode	1971-1980	1980-1990	1990-2000	2000-2010
Growth	2,30	1,97	1,49	1,49

Source: bps.go.id

3.2 Income of Indonesia

In recent years Indonesia has been experiencing environmental problems which had detrimental consequences for the whole region. Indonesia has also been experiencing economic growth rates unparalleled in any other part of the world, but at the expense of its environment. There are direct financial and health repercussions for Indonesia, Singapore and Malaysia, but there are Indonesian people who are actually living in this environment (Cohen 1997). Therefore, the importance of environment and its problems are focused firstly within Indonesia and secondly also at regional levels. There is a need to put a financial value on these problems, and there is a need to divert financial resources to look for solutions.

Indonesia's per capita income has increased and make Indonesia into a middle-income country because it managed to increase from USD 3,530 in 2013 to $ 4,700 per capita. When compared with neighboring countries

which are quite close to Indonesia like Malaysia and Singapore, Indonesia's per capita income is still at a low position in which Malaysia three times above where per capita income of USD USD 13,000 while Singapore amounting to USD 51,000 per year or 11 times above Indonesia.

The problem faced by middle-class society is meeting the needs of housing-related purchasing power and access to loans. Most people cannot obtain loans from banks or other financial institutions and in part have the purchasing power of cash.

3.3 Income of Each Province of Indonesia

Individual's income in every province in Indonesia must be diverse, because every individual in Indonesia especially in the province have different jobs and income, this happens because the education level of each individual is different, because one's work in general is based on level of education. Besides, location and gender is also a benchmark in determining the average amount of individual income in each province.

TABLE 3.3

The Level of Income in Each Province in Indonesia

Level	***Province***	***PDRB (in billion)***	***Income percapita* (in thousand)**
1	Kalimantan Timur	101.858	155.136.65
2	DKI Jakarta	74.065	174.824.11
3	*Riau*	*53.264*	*109.832.52*
4	Kep. Riau	40.746	95.396.95

5	Papua	26.615	39.850.48
6	Kep. Bangka Belitung	19.350	41.960.45
7	Sumatera Sealatan	18.725	38.834.86
8	Aceh	17.124	26.585.01
9	Papua Barat	17.084	39.850.48
10	Jawa Timur	16.757	39.903.87
11	Sumatera Utara	16.403	38.045.85
12	Kalimantan Tengah	15.725	36.834.82
13	Sumatera Barat	14.955	32.549.44
14	Jawa Barat	14.723	30.110.13
15	Jambi	14.226	46 004.12
16	Bali	14.199	38.112.66
17	Kalimantan Selatan	13.206	33.545.74
18	Banten	12.757	36.972.96
19	Sulawesi Utara	12.610	33.781.40
20	Sulawesi Tengah	11.540	31.878.01
21	Kalimantan Barat	11.394	17.228.76
22	Jawa Tengah	11.394	27.613.04
23	DI Yogyakarta	10.985	25.693.39
24	Sulawesi Selatan	10.909	35.592.79
25	Sulawesi Tengah	10.686	31.878.01
26	Lampung	10.078	28.781.83

27	Bengkulu	8.799	24.520.48
28	NTB	8.080	17.228.76
29	Sulawesi Barat	7.535	23.362.01
30	Gorontalo	6.068	23.362.01
31	NTT	4.769	13.620.02
32	Maluku	4.747	19.146.36
33	Maluku Utara	4.019	21.124.26

Source : Badan Pusat Statistik

Here is the list of economies in the Indonesian provinces which are arranged according to the regional gross domestic product (GDP) per capita at current prices. The data here are the data for the year 2008 produced by the Central Bureau of Statistics.

3.4 Overview of Indonesia Education

The greatest wealth of a nation laid in the knowledge of its people. Therefore, as confirmed in the preamble of the UUD 1945, one of our national tasks is educating the nation. That is, all the people of Indonesia without exception must have access to education as well as possible.

Nine year compulsory education is a government program in the field of education aimed at increasing enrollment rates, either pure participation rate or gross enrollment rate for children's education also makes Indonesia's young generation to be even better in terms of human resources. Nine year education includes the 6 years of primary education (SD) and three years at junior high school (SMP). The Government initiated

in 2012 as the start of compulsory education to 12 years. Thus, each of the students in Indonesia compulsory education to upper secondary education, although still a discourse but noticeable number of school dropouts Indonesia occurs when children cannot continue their education to senior high school.

Although limited discourse, but for the compulsory nine year education course Indonesia is said to fail, because the program should have made the education net enrollment for each of these levels is the figure of 100%, but in reality even for a new basic education absorbed 95.23% 4.77% means that there are still more children ages 7-12 who still do not get an education.

3.5 The New Paradigm of Education of Indonesia in the Era of Globalization

The 21st century is the era of globalization with the characteristics of openness and mutual dependence between countries. Due to the openness and mutual dependence coupled with the very rapid flow of information between countries, the competition will become more intense in the economic field. For Indonesia, this globalization not only has a domestic dimension but also a global dimension. In terms of the domestic dimension of globalization is particularly positive given the opportunity to adopt and implement the innovations that come from the outside to increase employment opportunities for the community. In addition, in terms of domestic profits, the effects of globalization can educate people to have a

cosmopolitan mindset and follow the pattern of a competitive, hard-working, and willing to learn to improve their skills and job performance.

For global terms, we live in an open world, a world without borders. Free trade and the increasing regional cooperation in human beings require a high quality. Global life is a challenge to open up new opportunities for economic development and for the high quality of Indonesian human resources to obtain employment abroad. This is where the challenges and opportunities for improving the quality of education in Indonesia better qualified human resources to meet the needs of both domestic and global. The new paradigm of education above suggests that education is no longer the responsibility has given to school, but returned to the community in the sense of the school and the community together bear responsibility.

In this new paradigm, people who have been passive towards education suddenly challenged in charge of education. This responsibility is not just to contribute to the construction of school buildings and pay tuition, but more importantly people are challenged to participate in determining the type of education that suits their needs, including the improving of the education quality and welfare thinking educators in order to provide good quality education to students.

CHAPTER IV

THEORETICAL FRAMEWORK & METHODOLOGY

4.1. Human Capital Theory

General theory used in this study is related to the theory of human capital and theories about education. Because educational theory can reveal that there is a strong relationship between human capital with education and the other things, such as location and gender.

Investment in human resources already introduced by Adam Smith, because he believes that humans will increase investment in economic growth. Human capital investment theory basically believes that the lifetime earnings of those with higher education will be greater than the lifetime earnings of those with lower education.

In other words, investment in education and skills of human resources is beneficial. The advantage was picked not only by those who gain, but also picked by the public (Riyanto TS, 1995). In human capital theory, education is a form of human labor investment. Education is seen as something that has the ability to increase futureearning. This theory also suggests that education has an influence on economic growth through increased labor productivity. The development of society starts from individual productivity. If each individual has a higher productivity due to education by itself will support the economic growth of society. It prospects to earn a higher income, and someday it will affect individuals (households) to invest the time and costs for education.

The basic assumption of human capital theory is that a person can increase their incomes through increasing education (Simanjuntak PJ, 1991). As investment in the physical plane, the investment in education, which is seen as an investment of the cost for the education incurred, investment in human resources is the sacrificed amount of funds spent and the opportunity to earn income during the educational process takes place in which the reward income received is higher to achieve a higher level of consumption as well.

Ace Suryadi (1997) revealed that according to human capital theory are reflected in the skills, knowledge and work productivity. The model is intended educational model of cost-benefit analysis. This model is a very important methodology in conducting investment analysis for education and decision making, which can help to decide between alternative and choose allocation of educational resources that are limited to be able to provide the highest capability.

4.2. Income and Education

The analysis of the income education relationship result in estimates that are too high was considered in earlier paper by the authors Griliches (1970), and a negative answer was conjectured. In other analysis present by William M. Mason (1972), unfortunately, a definitive answer to the question is hampered by the vagueness and elasticity of education.

Here I use the paper of William M. Mason (1972), to complete my analysis about the relationship between income and education. Based on William M.

Mason theory the output of the educational process is measured by the number of school grades completed in the formal education system. In his paper the basic roblem and analytical framework can be set out very simply. Let income be a linear function of education and ability, in William M. Mason paper he wrote the formula becomes,

$$Y = \alpha + \beta_1 E + \beta_2 G + \mu \qquad (4.1)$$

Where Y is income, E is education, G is ability and μ represent other factors affecting income, wich are assumed to be random and uncorrelated with E (education). Associated that positive and measure the contribution of education to income. In William M. Mason paper he found that the relationship between income and education have positive relationship, every increasing the education one level, will increase the individual income. In the William M Mason paper the educational output process is measured by the completed of the number of school grades in the formal education system.

In my thesis, I'm using theory based on William M. Mason, because the paper of William M. Mason is match with my thesis. But in William M. Mason paper, he focus on ability not education, but in my thesis I focus in education, and ignoring the ability, because there is not enough data for ability in each provinces in Indonesia. The equation becomes,

$$Y = \alpha + \beta_1 E + \varepsilon \qquad (4.2)$$

Where Y is income, E is education, and ε is error term. In my thesis I divide education become primary, junior high school, senior high school, and college. Here based on each level of education, the true income generating equation becomes,

$$Y = \alpha + \beta_1 E + \beta_2 E + \beta_3 E + \beta_4 E + \varepsilon \qquad (4.3)$$

Where Y is income, $\beta_1 E$ *is* primary, $\beta_2 E$ *is* junior high school, $\beta_3 E$ is senior high school, $\beta_4 E$ *is* college. Based on William M. Mason paper I solve the problem by concentrating my attention on the part of schooling occurring during 2003-2013 in each province in Indonesia.

4.3. Location Theory

Location of school also can affect the individual income, because the distribution of education in to the village or rural area is very low. Unlike in the city, education in the city are very good and educative, because lot of certified teacher teach in city, because the income of teacher in rural area is very low, and lot of teacher in rural area just temporary teacher, so that's way lot of children in rural area cannot get good education.

Location can lead to a lack of education and teacher distribution and geographical conditions make it difficult for rural area children to get good education (Alfred Webere 1929). Not many children who live in rural areas can get a chance to take a proper education in ordr to improve living standards and increase revenues, due to the geography of Indonesia are a lot of mountains and education are not well distributed in rural areas.

4.4. Research Methods and Data Analysis

The research method used the data panel regression model, the data used comes from "Badan Pusat Statistik Indonesia" and "SUSENAS". The data that will be analyzed is the data time series development of regional minimum wage, school enrollment rates, gross enrollment rates, the net enrollment rates, percentage of population aged 15 years and over are literate according to age group and area of residence, percentage of population aged 15 out and upward by age group, area of residence and enrollment from 2003 until 2013. And also time cross section that are, total income household group, the average number of per capita income by household group, the value of disposable income by household group, the average disposable income per capita by household group, from 2000, 2005,2008.

4.5. Panel Estimation

Panel data is data that has linkages between spatial dimensions (cross section), and the dimension of time (time series). Data panel is widely used in researches because there are weaknesses in the approach to time series alone or cross section only. If using time series data more likely to yield biased estimates and if only using cross section only we could data see the results of the estimation at a time without being able to know the effects of the changes that occur in a certain period.

Panel data method has several advantages in the econometric analysis as expressed by Balgati (Gujarati, 637-638, 2004). First, the data panel can show or considered heterogeneity of specific variables such as

individual differences, countries, companies and others. Second, by combining cross section with time series, the data panel can provide more information, varied and reduce problem of collinearity between variables, increasing the degrees of freedom and more efficient. Third, panel data is better in explaining the dynamics of education, individual income, employment, house hold. Fourth, panel data better at identifying and measuring the effects of which cannot be detected cross section and time series pure. Fifth, panel data can be used to test the behavior of more complex models, and panel data to minimize bias due to the panel data it is possible to use data that is many and varied.

Panel data regression model can be written mathematically as follows (Gujarati, 2004):

$$Y_{it} = \beta_1 + \beta_2 X_{2\,it} + \beta_3 X_{3it} + u_{it}$$

$i = 1, 2, 3, 4, \ldots\ldots$ n

$t = 1,2,\ldots\ldots nt$

Where i is the unit cross section while t is the time period, Y_{it} representing the dependent variable in period t and the unit i, $X_{2\,it}$,X_{3it} is variable - the independent variable in period t and unit i while β is a constant. If each unit cross section has a number of time series observations are the same then referred to as a balanced panel, and if the number of time series observations on each unit is different than the cross section referred to as an unbalanced panel.

According to Gujarati (2004), the panel data regression models, there are three approaches to facilitate the calculation. The approach consists of:

4.5.1 Common Approach-Constant (Pooled Ordinary Least Square).

This approach is the simplest approach in data processing panel. This approach assumes the intercept and slope, both among individuals and between times unchanged. However, this approach cannot see the difference between individuals or between times since assuming the behavior of each individual is the same in different periods. Mathematically Pooled Ordinary Least Square equation is written as follows (Gujarati, 2004):

$$Y_{it} = \beta_1 + \beta_2 X_{2\,it} + \beta_3 X_{3it} + u_{it}$$

Where i = 1, 2, ..., n and t = 1, 2, ..., t, where n is the number of units for cross section or individual and t is the number of time periods to be studied.

4.5.2 Fixed Effect Model Approach.

Weakness in the pooled least squares approach can be overcome by doing generalizations which can be done by adding a dummy variable into the regression model. But to add dummy variables, it must be based on statistical considerations because it will reduce the degree of freedom that would affect the efficiency of the parameters estimation.

Approach with dummy variables known as adding fixed effect approach or least square dummy variable (lSDV) or also called covariance models (Gujarati, 2004). Mathematically it can be written as follows:

$$Y_{it} = \alpha_i + X^j{}_{it}\beta_j + \sum_{i=2}^{n} \alpha_i D_i + e_{it}$$

Where,

Y_{it} = dependent variable at time t and the unit to the cross section i

α_i = intercept varies between unit cross section

$X^j{}_{it}$ = independent variable j at time t and the unit to the cross section i

β_j = parameter for the variable j

e_{it} = error at time t to a unit cross section i

D_i = Degrees of freedom

4.5.3 Random Effect Model Approach.

Random effect approach is also known as Error Component Model. In the approach of random effect model parameters that vary from time to each individual become error. In mathematical form of random effect model is written as follows:

$$Y_{it} = \alpha_i + \beta X_{it} + \varepsilon_{it}\ ;\ \varepsilon_{it} = u_i + v_t + w_{it}$$

Where,

u_i = component cross section error

v_t = component time series error

w_{it} = error component combination

4.5.4 DUMMY VARIABLE

Dummy variable used to see how much income can influence the province with the high education in Indonesia. The writer used some of province in Indonesia with the high level of education. North Sumatera, Bengkulu, Jakarta, Westjava, Djogjakarta, and South Sulawesi.

$$Y = \alpha + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \beta X_5 + \varepsilon$$

Where,

Y = Income

α = constanta

βX_1 = Dummy for North Sumatera

βX_2 = Dummy for Jakarta

βX_3 = Dummy for WestJava

βX_4 = Dummy for Djogjakarta

βX_5 = Dummy for South Sulawesi

4.6 Selection Panel Data Approach

To determine the approach that will be used in the study, there must be some tests that should be done. The test is Chow test which is conducted

to choose the approach pooled ordinary least squares or fixed effect. Basic rejection of the null hypothesis is using the F statistic value *F (N-1, NT-NK)* as formulated by chow:

$$CHOW = \frac{(RRSS-URSS)/(N-1)}{URSS/(NT-N-K)}$$

Where,

$RRSS$ = *Restricted Residual Sum Square*

$URSS$ = *Unrestricted Residual Sum Square*

N = average sampel of *cross section*

T = average sampel of *time series*

K = the total number of regression coefficients including constant

The hypothesis of the test is:

H0: Pooled Ordinary Least Square Approach

H1: Approach Fixed Effect

If the value of the chow test statistic is greater than the F table then we will reject the null hypothesis, or it could be if the p-value less than 5 percent, then reject hypothesis zero, then the approach used is the fixed effect and vice versa.

Further test carried out to determine whether the fixed effect or random effect by considering the chi-square statistic (Gujarati, 2004). This test is also called the Hausman test the following hypotheses:

H0: Random effect Approach

H1: Fixed effect Approach

With α level of 5%, then if the value of the random effect probability cross section is smaller than 5%, the null hypothesis is rejected and the fixed effect method that will be used. Conversely, if the random-effect probability cross section is greater than 5%, the approach used is a random effect.

4.7 Classical Assumption Test

4.7.1 Heteroskidastity Test

Heteroscedasticity occurs when the variance of the error variance is not constant, which means that the model has been violated assumptions BLUE. Heteroscedasticity test can be done by using cross-sectional weighting. The method compares the R squared value of the cross-section and no weighting. If the R squared value of the cross-section is greater weighting than the value of R squared value of unweighting it in the model, there is the problem of heteroscedasticity. So by using a cross-sectional weighting heteroscedasticity problems have been resolved. Heteroscedasticity problem also can be solved by using the GLS (Generalized Least Square) and White Heteroskedasticitu Consistent Standard Errors and Covariance.

4.7.2 Autocorrelation Test

Testing the presence or absence of autocorrelation can be done with the test Durbin - Watson. This test is expected between the observation errors which are not correlated with other observations. Test Durbin - Watson has the following hypotheses

H0: no positive autocorrelation

If: $d < dl$ then reject *H0* means there is positive otokorelsi

$d < dU$ then accept *H0* means that there is no positive correlation

$dL < d < dU$ then it cannot be concluded

H0: no autocorrelation negative

If: $d < 4 - dL$ reject *H0* means no negative autocorrelation

$d < 4 - dU$ then accept *H0* means no negative correlation

$4 - dL < d < 4 - dU$ then it cannot be concluded

H0: there is no negative or positive autocorrelation

If: $d < dl$ then reject *H0* means there autocorrelation

$d < 4 - dL$ reject *H0* means there otokorelsi

$dU < d < 4 - dU$ then accept *H0* means no correlation

$dL < d < dU$ then it cannot be concluded

$4 - dL < d < 4 - dU$ then it cannot be concluded

If found autocorrelation problems, there are some ways to the problem is to add a variable AR (autoregressive), add lag dependent or independent variable and add differencing or perform regression derivative value.

4.7.3 Test Multicollinearity

Testing the presence or absence of multicollinearity can be done by calculating the correlation between the independent variables. Multicollinearity detection can also be seen from the value of R2 is too high but the T-stat insignificant. It also can be seen from the value of the F-stat significant but the T-stat value for each variable is not significant. According to Gujarati (2004), multicollinearitas test also can be done by looking at the value of the correlation coefficient between variables. If the value of the correlation coefficient between variables worth more than or equal to 0.8 then the variables are multicollinearity.

4.8 Significance Tests and Analysis

This test aims to determine whether each independent variable has a significant effect on the dependent variable. Next is to analyze the relationship between each independent variable in influencing the dependent variable

4.9 Data and Data Sources

In this study, the data that used are time series data (time series) which is arranged chronologically according to the time on a particular

variable. The data in this study is SUSENAS 2009, and the data obtained from the BPS (Central Bureau of Statistics), in this study presented data used include; income data, education data, where working people of each province in Indonesia.

CHAPTER V

RESULT AND DISCUSSION

5.1. Empirical Discovery

To see how much influence between income individuals with education (primary, elementary school, junior high school, senior high school, and college). This study used panel data regression analysis by combining the cross section regression with analysis time series. To achieve the research objectives in accordance with the hypothesis, namely to analyze the effect of the level of education (primary, junior high school, senior high school, and college) on the level of income that exist in all provinces in Indonesia, by using program eviews 8.

TABLE 5.1

Regression Analysis Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1863.834	409.1912	4.554923	0.0000
PRIMARY	-34.19831	5.641029	-6.062425	0.0000
JUNIOR	21.92926	6.787659	3.230755	0.0014
SENIOR	5.257247	4.756174	1.105352	0.2698
COLLAGE	2.769842	3.069454	0.902389	0.3675

Table 5.1 shows an overview of the variables used , with the dependent variable income. It can be seen that the probability of a variable level of education affect high or low individual income. We can see that the primary, junior high school, has significant level 0,000 on the level of an

individual income. Why level of education influence the individual income, its because the average of demand of occupation is based on education, if someone have high education level, the probability for get lot of income will more than someone have low education level. Like, the people graduate from senior high school will have different income with people graduate from college. So every increasing the education one level, will increase the income of the individual. In 5.1 table show the senior high school and college has no significant probability, because the data of income are for labour so its more significant for junior high school and primary and also relationship of income from junior high school to senior high school is very significant, its different from income of primary to junior high school, because the changing of the income its not to much, because primary and junior high school are low education level. In the 5.1 table also show that primary has negative coeeficient (-34.19831), its mean that every reduce one level of education, will reduce the individual income, so the relationship between level of education is positive.

Based on the results of empirical findings obtained from the results of this study concluded that the value of the level of education (elementary school, junior high school, college) give a positive effect significantly on the level of income, which means that any increasing in the level of education, will affect the increasing in revenue as well. So education will simultaneously give significant positive effect on the increase in revenue.

These findings prove that the hypothesis can be accepted. The findings of this study are also consistent with the findings of previous

studies, among them by Zvi Griliches and Wiliam M. Masonin 2010. This study examines the effects of education and ability to individual income by using Data 62 countries at 10-year intervals from 1960 to 2000. These results indicate that the educational level and abiity affect income growth in every country that has been investigated.

Research conducted by Daniel Cohen and Marcelo Soto in 2007 examines the Growth and human capital using data for years of schooling across countries from year 1960 to 2000. These results indicate that the level of education has a significant impact on human capital and economic growth.

Education has been proved to have a significant impact on income levels, and not just the level of income that can be influenced by the level of education, but many other things can also be influenced for the example only human resource education, economic growth, and also can improve the well-being of a country. Education can be assumed as basic of a country, when getting steeper level of education of a country, high level of education also affect the level of prosperity of a country, because education can affect poverty and unemployment in a country.

In table 5.1 I use common effect method that regress all provinces in Indonesia, here actually I want to see which province that have high level of education and the big impact to income. In common effect method, it's does not show us which province that have high level of education and how big

the impact to the income, so I use fixed effect method, to find the result of my analysis.

TABLE 5.2

FIXED EFFECT METHOD

Dependent Variable: PENDAPATAN?
Method: Pooled Least Squares
Date: 10/28/15 Time: 16:32
Sample: 2003 2013
Included observations: 11
Cross-sections included: 33
Total pool (unbalanced) observations: 350

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	105.6798	796.4490	0.132689	0.8945
SD?	-13.51020	9.778511	-1.381621	0.1681
SMP?	12.16456	6.016677	2.021808	0.0440
SMA?	2.121245	4.668999	0.454326	0.6499
KULIAH?	53.83505	4.742853	11.35078	0.0000
Fixed Effects (Cross)				
_ACEH--C	-297.3484			
_SUMUT--C	30.84079			
_SUMBAR--C	-405.5020			
_RIAU--C	84.62726			
_KEPRI--C	357.5269			
_JAMBI--C	123.5613			
_SUMSEL--C	219.9069			
_BANGKA--C	508.0451			
_BENGKULU--C	-181.8343			
_LAMPUNG--C	183.5765			
_JAKARTA--C	75.67496			
_JABAR--C	-49.34891			
_BANTEN--C	224.3753			
_JATENG--C	15.95532			
_JOGJA--C	-1810.637			
_JATIM--C	-114.2780			
_BALI--C	-97.95449			
_NTB--C	-1.511523			
_NTT--C	-6.413144			
_KALBAR--C	108.4468			
_KALTENG--C	278.2159			
_KALSEL--C	343.9380			
_KALTIM--C	41.51707			
_SULUT--C	188.6444			
_GORONTALO--C	52.61997			
_SULTENG--C	14.12061			
_SULSEL--C	-31.88546			
_SULBAR--C	393.7402			
_SULTENGGARA--C	-154.2564			
_MALUKU--C	-400.0526			
_MALUKUUTARA--C	-175.0247			

_PAPUA--C	357.5070
_PAPUABARAT--C	344.6945

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.710769	Mean dependent var	779.3551
Adjusted R-squared	0.677503	S.D. dependent var	317.4123
S.E. of regression	180.2548	Akaike info criterion	13.32632
Sum squared resid	10169932	Schwarz criterion	13.73416
Log likelihood	-2295.106	Hannan-Quinn criter.	13.48865
F-statistic	21.36609	Durbin-Watson stat	0.529137
Prob(F-statistic)	0.000000		

In the fixed method, the dummy for all of province, but here I wanna see wich provinces that have high level education and have greater impact for individual income. And the other reason why I choose fixed effect method because the common effect in attachment 1 and *Fixed Effect* in attachment 2, 4 the results showed that the Cross Section F significant with a probability of 0.0000 less than 5%, which means reject the hypothesis $h_0$and receiveh_1, so between the *Common* and the *Fixed Effects* models with two tests above shows that *Fixed Effect estimation* model more appropriate use of *Common*. In the model annex 4 the results showed that the Cross Section F significant with a probability of 0.0000 less than 5%, which means reject the hypothesis $h_0$and receive h_1, so between the Common and the Fixed Effects models with two tests above show that the estimation model Fixed Effect more appropriate use of the Common models.

The next steps is comparing the Fixed Effect models with Random Effect using Haustman-Test. Testing the model selection between Fixed

Effect and Random Effect using Hausman test contained in 8.0 eviews program. Based on the result of hausmant test, the cross section of random method significant with probability 0,0000 with significance level 65% with $\alpha = 5\%$, wich means reject the hypothesis h_0 and receive h_1, so based on hausmant test, the fixed effect more appropriate use from random effect method.

Table 5.3

RANDOM EFFECT METHODE

Dependent Variable: PENDAPATAN?
Method: Pooled EGLS (Cross-section random effects)
Date: 10/28/15 Time: 16:34
Sample: 2003 2013
Included observations: 11
Cross-sections included: 33
Total pool (unbalanced) observations: 350
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	942.2700	549.2133	1.715672	0.0871
SD?	-26.40075	6.920696	-3.814753	0.0002
SMP?	19.22027	5.633581	3.411731	0.0007
SMA?	5.392185	4.208051	1.281398	0.2009
KULIAH?	28.61921	3.652792	7.834888	0.0000
Random Effects (Cross)				
_ACEH--C	-143.2758			
_SUMUT--C	-14.05648			
_SUMBAR--C	-223.6730			
_RIAU--C	13.16564			
_KEPRI--C	128.5545			
_JAMBI--C	67.62041			
_SUMSEL--C	144.3580			
_BANGKA--C	334.9137			
_BENGKULU--C	-135.2294			
_LAMPUNG--C	65.65654			
_JAKARTA--C	94.56603			
_JABAR--C	-78.56124			
_BANTEN--C	170.4148			
_JATENG--C	-47.21364			
_JOGJA--C	-1017.970			
_JATIM--C	-158.7844			
_BALI--C	-114.9443			
_NTB--C	-6.745723			
_NTT--C	2.437042			

_KALBAR--C	37.54994
_KALTENG--C	182.0151
_KALSEL--C	285.8632
_KALTIM--C	-3.114654
_SULUT--C	119.5908
_GORONTALO--C	60.78457
_SULTENG--C	31.60735
_SULSEL--C	62.60234
_SULBAR--C	294.3663
_SULTENGGARA--C	-90.66224
_MALUKU--C	-293.4941
_MALUKUUTARA--C	-159.5480
_PAPUA--C	157.6785
_PAPUABARAT--C	233.5284

Effects Specification

	S.D.	Rho
Cross-section random	134.5899	0.3579
Idiosyncratic random	180.2548	0.6421

Weighted Statistics

R-squared	0.423286	Mean dependent var	296.5202
Adjusted R-squared	0.416599	S.D. dependent var	277.7154
S.E. of regression	211.5386	Sum squared resid	15438258
F-statistic	63.30412	Durbin-Watson stat	0.282274
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	-0.076606	Mean dependent var	779.3551
Sum squared resid	37855576	Durbin-Watson stat	0.115117

Here I regressed the data with fixed effect method with using dummy variable, and choose 6 provinces in Indonesia with the high level education, the province are, North Sumatera, Jakarta, West Java, Jogjakarta, South Sulawesi. That based on BPS data, this province have high level of education.

Table 5.4 explains that the probability of Jakarta, Jogjakarta, and South Sulawesi has a probability of 0.000 which means that the province has significant level of education that influence income, in the result North Sumatera has no significance impact between high level of education with income the result is 0,3638, more than 0,05. Because 0,05 is significance of probability in regression. Jakarta has significance impact between high level of education with income because the probability is 0,0371. West java has no significance impact between high level education with income with the result is 0.9873. Djogjakrta has significance impact with the income the result is 0.0000. South Sulawesi has significance impact with the income, the result is 0,0003.

So, from the result of the data Jogjakrta have a significant result, and its mean that level of education in Jogjakarta its really have significant impact to the individual income.

TABLE 5.4

Dummy of Higher Level Education

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PRIMARY	-35.38927	5.437669	-6.508170	0.0000

JUNIOR	18.50804	6.429177	2.878757	0.0042
SENIOR	13.19713	3.892219	3.390644	0.0008
DSUMUT	-72.79820	80.05952	-0.909301	0.3638
DJAKARTA	167.5638	80.07280	2.092643	0.0371
DJABAR	1.417651	89.09036	0.015913	0.9873
DJOGJA	-477.0379	84.45527	-5.648409	0.0000
DSULSEL	295.9072	81.09113	3.649069	0.0003
C	1856.793	387.5190	4.791490	0.0000

R-squared	0.352088	Mean dependent var	783.8342
Adjusted R-squared	0.336799	S.D. dependent var	312.7464
S.E. of regression	254.6919	Akaike info criterion	13.94351
Sum squared resid	21990236	Schwarz criterion	14.04313
Log likelihood	-2417.170	Hannan-Quinn criter.	13.98317
F-statistic	23.02745	Durbin-Watson stat	0.656610
Prob(F-statistic)	0.000000		

Table 5.4 shows the coefficient of North Sumatera is -72.79820 its mean that the value of North Sumatera has negative relationship with individual income, when the variable of North Sumatera increase 1%, so the variable will decrease -72.79820. The coefficient of Jakarta is 167.5638, its mean that Jakarta has positive relations with individual income, if the level of education of Jakarta increase 1%, so the individual income will increase as much 167.5638. The coefficient of West Java is 1.417651 its mean that West Java has positive relations with individual income, if the level of education of West Java increase 1%, so the individual income will increase as much 1.417651. The coefficient of Djogjakarta is -477.0379 its mean that the value of Djogjakarta has negative relationship with individual income, when the variable of Djogjakarta increase 1%, so the variable will decrease -477.0379. The coefficient of South Sulawesi is 295.9072, its mean that South Sulawsei has positive relations with individual income, if the level of education of South Sulawesi increase 1%, so the individual income will increase as much 295.9072

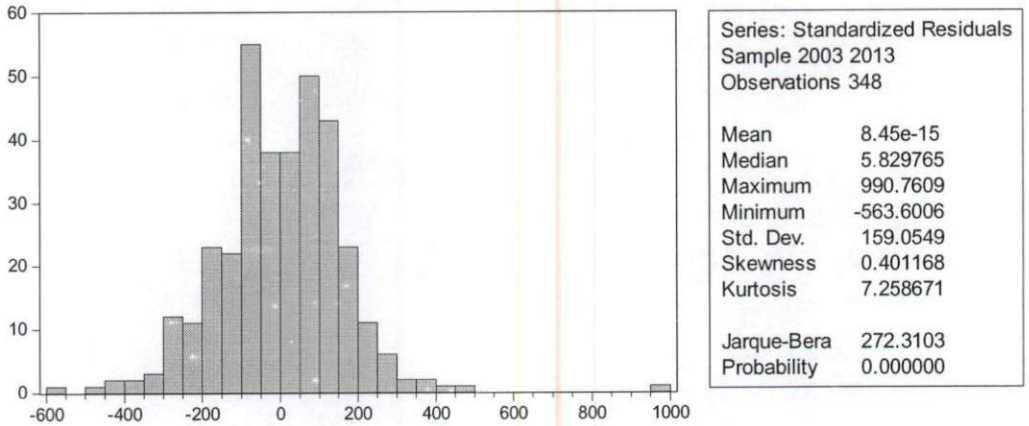
5.2 Classical Assumption Test

5.2.1 Normality Test

Normality can be detected using the test Jarque-Bera (JB) and graphical method. This study will use a method JB test conducted by calculating the difference skweness and kurtosis data. If JB count <value X2 (Chi Square) table or probability exceeds 0.05, the residual value of normal distribution.

DIAGRAM 5.1

Normality Diagram



5.2.2. Autoceralation Test

Autocorrelation is used to test a model to know whether the confounding variables and independent variables affect each other. To determine if the regression model can be used to contain the autocorrelation approach DW (Durbin Watson). According SinggihSantoso (2001) there are three autocorrelation criteria, namely:

1. Values below -2 DW means indicated no positive autocorrelation

2. DW value between -2 to 2 means indicated no autocorrelation

3. The value of DW above 2 means indicated no negative autocorrelation.

Based attachment 3 where the value of 0.608270 DW, then based on the data used Santoso pass autocorrelation test in which the value of DW is between -2 to 2.

5.2.3. Multicoleniarity Test

Multikolinearity means perfect linear relationship or certainly, between some or all variables that explain the regression model. The Multikolinearity presence can be known or seen from the correlation coefficient of each independent variable, which is greater than 0.8 then there multikolinearitas.

TABLE 5.3

Multicoleniarity Table

	CROSSID	DATEID	COLLAGE	INCOME	PRIMARY	SENIOR	JUNIOR
CROSSID	1	0.0244026	-0.015419	0.032395	-0.4245969	-0.228427	-0.311664
DATEID	0.024402	1	0.3714697	0.8534044	0.1271348	0.401864	0.389726
COLLAGE	-0.0154198	0.3714697	1	0.322482	0.1988369	0.715219	0.551463
INCOME	0.0323958	0.8534044	0.3224822	1	-0.0642863	0.416267	0.35502
PRIMARY	-0.4245969	0.1271348	0.198836	-0.064286	1	0.3837702	0.597288
SENIOR	-0.2284273	0.4018647	0.7152193	0.416267	0.383770	1	0.8867032
JUNIOR	0.31166449	0.3897269	0.5514628	0.35502	0.597288	0.886703	1

From the table, it can be seen that there is a problem multicollinearity in multiple equation because there are several variables that more than 0.8 such as income, smk and smp. Which has a perfect relationship or certainly among some of the variables that explain the regression model.

5.2.4. Heteroscedasity Test

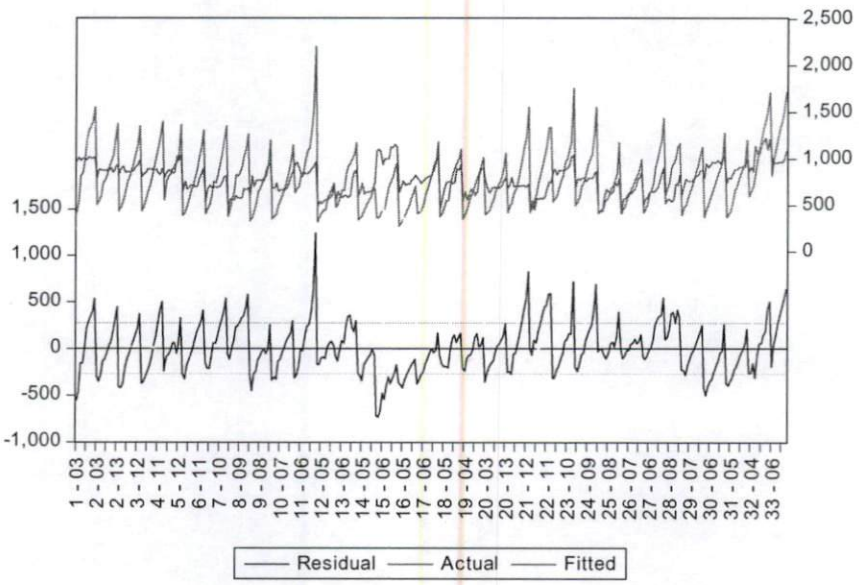
Heteroscedasitas is a situation where all the disturbances that arise in the population regression function do not have the same variance. The data processing panel used to resolve the problem heteroscedasitas between cross section then used cross section weightes, because eviews not automatically use the weights are in the process of panel data other than that due to the

variations between the cross section also differs between the time the option "white Heteroskedacity-Consistent Standard Errors & variance" or "white Cross Section - Consistent Standard Errors & covariance" is enabled. gtrfeHeteroskedasitas test can be done in a way such as,

• Looking at the pattern of the residuals of the regression estimation. If the residual moving is constant, then there is no heteroskedasitas. However, if the residual form a certain pattern, then it indicates heteroskedasitas.

DIAGRAM 5.2

HETEROSCEDASITY DIAGRAM



Based on the table, there are essentially no significant differences, only the R-squared of which model that weighted bigger (better) so it can be concluded there is no heteroscedasticity in the mode

TABLE 5.4

HETEROSCEDACITY TABLE

parameter	unweighted	weighted
Prob t-statistic	<0,05	<0,05
R-squared	0.175664	0.511965
Prob(F-statistic	0,000000	0,000000

5.2.5 The coefficient of determination (R^2)

The coefficient of determination (R^2) is essentially measures how far the ability of the model to explain the dependent variables. The strength of the influence of the independent variables can be known and the value of the coefficient of determination (R^2) which is between zero and one. If the value of (R^2) closer to one, it means that independent variables provide almost all the information needed to predict the dependent variable.

From the results of the panel data estimation using a fixed effect in appendix 3 obtained the value adjusted $R^2$is equal to 0.724521. it can be concluded that, variations in the independent variables are education (primary school,junior high school, senior high school, collage) on panel data model jointly able to explain the high and low education levels affect

an individual's income by 72%, and the remaining 28% is explained by other variables not included in the study.

5.2.6. Testing simultaneous regression coefficient (Test F)

F test is used to determine insignificant independent variables together in influencing the dependent variable. Or in other words if all the independent variables or smoking are included in the model have influence together on the dependent variable / bound.

Based on the results of the F test statistic where F statistic is greater than the F table (48.74956> 3.943409) with a probability of <0.05 can be concluded that variation of independent variables significantly affected the higher education of its low income level in general, so people with education in elementary level (SD) have lower earnings, than the community education level junior high school, senior high school, or college that exist in every province in Indonesia.

5.2.7. Testing In Individual Regression Coefficients (t test)

To determine the effect of each independent variable on the dependent variable, namely the variable of education (primary, junior, senior, college) on the dependent variable of individual income in each of the provinces in Indonesia, the use of testing to regression coefficient is the t-test.

From the results of the panel data regression with fixed effect method in Annex 2 can be known that the values of t statistic and probability of each independent variable, where the assumption that:

H0 : $\beta i = 0$

H1 : $\beta i < 0$

$\beta i > 0$

that is, if $T_{hitung} < T_{tabel}$ then H0 is accepted and reject the hypothesis H1, and vice versa if $T_{hitung} < T_{tabel}$ then reject H0 and accept H1 hypothesis.

CHAPTER VI

CONCLUSIONS AND SUGGESTION

6.1. Conclusions

This study analyzed the effect of educational level in elementary, junior high, and high school, on income individuals per province in Indonesia. Analysis obtained by using data from the publication of the Central Bureau of Statistics (BPS) and SUSENAS.

A few things can be inferred from executing research on the analysis of the effect of educational level on the rise in individual income in each of the provinces in Indonesia,

1. Number of children who sit in elementary school has the largest percentage than the number of junior high school, and education. This may be due to government programs by requiring children of primary school age and junior high schools to get education. The government allocated a budget for elementary and junior high schools, so that children Indonesia no longer illiterate.
2. Most of the children who graduate from high school do not continue their education to pursue further lectures, therefore, the percentage of people who do not study too much and only major cities are large percentage of his lectures, while in smaller towns the percentage of college her inclined slightly. This is due to its uneven spread of campuses and the quality of the education system in small towns, which caused the children are not able to compete with kids from big cities with a good education system.

3. Yogyakarta is a city with the highest educational level throughout Indonesia, and Papua is a city with lowest levels of education in Indonesia. Educational disparities between regions due to its uneven spread of the quality of education in Indonesia, which led to people living in areas with low levels of education, will have a low income as well, while large urban communities with a good quality of education will have a high income, with high welfare.
4. Raising one level of education will make individual income increased by the result of the data, as thos in empirical findings that have been tested with various tests.
5. The coefficient of determination (R^2) of 0.724521. Concluded that variations in the independent variables which is education (primary school, junior high school, senior high school, collage) on panel data model jointly able to explain the high and low education levels affect an individual's income by 72%, and the remaining 28% is explained by other variables not included in the study.
6. The dummy variable result shows that education has greater imoact on income in 3 provinces compare to the rate of the rest of the data. There provinces are DKI Jakarta, Djogjakarta, and South Sulawesi.

6.2 Suggestions

The conclusions form the basis for researchers to submit suggestions for the Indonesian government to pay more attention to the system and the

quality of education available in each province in Indonesia, because education is the foundation for the welfare of the Indonesian people, not just to have a lot of income.

The advice to the government, among others:

1. For 9-year compulsory education program increased to 12 years or compulsory only until junior high school level can be increased to high school.
2. It is expected that the government can provide more budget to help schools in operating the teaching and learning activities and streamline the budget for underprivileged children or children excel by giving them scholarships.
3. It is expected that the government improve the quality of teachers by conducting certification, so that the lesson presented by each lecturer will provide good quality knowledge to the students.
4. It is expected that the government can establish Indonesian education system with either correcting or improving the system of recruitment of new students.
5. From the results of regression analysis showed that education in general have significant positive effect on the level of income, with the result expected the government can solve all the problems that can reduce or negatively affecting the education system in Indonesia.

Based on the limitations of this study, it is suggested for further research in order:

1. In the selection of data using a longer time frame and expected a more up to date. And expected data obtained from various sources is the most recent data that has been available in various statistical agencies.
2. Incorporate other variables that can affect the lace high income, and education is not the only variable.

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ATTACHMENT 1 : Estimasi Model Common Effect

Dependent Variable: INCOME
Method: Panel Least Squares
Date: 06/01/15 Time: 15:18
Sample: 2003 2013
Periods included: 11
Cross-sections included: 33
Total panel (unbalanced) observations: 348

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1863.834	409.1912	4.554923	0.0000
PRIMARY	-34.19831	5.641029	-6.062425	0.0000
JUNIOR	21.92926	6.787659	3.230755	0.0014
SENIOR	5.257247	4.756174	1.105352	0.2698
COLLAGE	2.769842	3.069454	0.902389	0.3675

R-squared	0.254865	Mean dependent var	783.8342
Adjusted R-squared	0.246176	S.D. dependent var	312.7464
S.E. of regression	271.5360	Akaike info criterion	14.06033
Sum squared resid	25290013	Schwarz criterion	14.11568
Log likelihood	-2441.497	Hannan-Quinn criter.	14.08237
F-statistic	29.32984	Durbin-Watson stat	0.625734
Prob(F-statistic)	0.000000		

ATTACHMENT 2 : Uji Model Common dan Model Fixed Effect

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	18.279839	(32,311)	0.0000
Cross-section Chi-square	368.217788	32	0.0000

Cross-section fixed effects test equation:
Dependent Variable: INCOME
Method: Panel Least Squares
Date: 06/01/15 Time: 15:20
Sample: 2003 2013
Periods included: 11
Cross-sections included: 33
Total panel (unbalanced) observations: 348

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1863.834	409.1912	4.554923	0.0000
PRIMARY	-34.19831	5.641029	-6.062425	0.0000
JUNIOR	21.92926	6.787659	3.230755	0.0014
SENIOR	5.257247	4.756174	1.105352	0.2698
COLLAGE	2.769842	3.069454	0.902389	0.3675

R-squared	0.254865	Mean dependent var	783.8342
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Log likelihood	-2441.497	Hannan-Quinn criter.	14.08237
F-statistic	29.32984	Durbin-Watson stat	0.625734
Prob(F-statistic)	0.000000		

ATTACHMENT 3 : Uji Model Fixed Effect dan Random Effect

orrelated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	153.876778	4	0.0000

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
SD	-18.297998	-28.185504	40.634597	0.1209
SMP	15.920174	21.971639	3.830312	0.0020
SMK	3.952345	5.719439	3.463218	0.3423
KULIAH	52.174206	28.818398	7.774848	0.0000

Cross-section random effects test equation:
Dependent Variable: INCOME
Method: Panel Least Squares
Date: 06/01/15 Time: 15:21
Sample: 2003 2013
Periods included: 11
Cross-sections included: 33
Total panel (unbalanced) observations: 348

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	169.7482	742.3157	0.228674	0.8193
PRIMARY	-18.29800	9.143685	-2.001162	0.0462
JUNIOR	15.92017	5.641975	2.821738	0.0051
SENIOR	3.952345	4.359668	0.906570	0.3653
COLLAGE	52.17421	4.437302	11.75809	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.741352	Mean dependent var	783.8342
Adjusted R-squared	0.711412	S.D. dependent var	312.7464
S.E. of regression	168.0086	Akaike info criterion	13.18614
Sum squared resid	8778561.	Schwarz criterion	13.59571
Log likelihood	-2257.389	Hannan-Quinn criter.	13.34920
F-statistic	24.76129	Durbin-Watson stat	0.911373
Prob(F-statistic)	0.000000		

ATTACHMENT 4 : Dummy Variabel Method

Dependent Variable: INCOME
Method: Panel Least Squares
Date: 08/21/15 Time: 10:31
Sample: 2003 2013
Periods included: 11
Cross-sections included: 33
Total panel (unbalanced) observations: 348

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PRIMARY	-35.38927	5.437669	-6.508170	0.0000
JUNIOR	18.50804	6.429177	2.878757	0.0042
SENIOR	13.19713	3.892219	3.390644	0.0008
DSUMUT	-72.79820	80.05952	-0.909301	0.3638
DJAKARTA	167.5638	80.07280	2.092643	0.0371
DJABAR	1.417651	89.09036	0.015913	0.9873
DJOGJA	-477.0379	84.45527	-5.648409	0.0000
DSULSEL	295.9072	81.09113	3.649069	0.0003
C	1856.793	387.5190	4.791490	0.0000

R-squared	0.352088	Mean dependent var	783.8342
Adjusted R-squared	0.336799	S.D. dependent var	312.7464
S.E. of regression	254.6919	Akaike info criterion	13.94351
Sum squared resid	21990236	Schwarz criterion	14.04313
Log likelihood	-2417.170	Hannan-Quinn criter.	13.98317
F-statistic	23.02745	Durbin-Watson stat	0.656610
Prob(F-statistic)	0.000000		

ATACHMENT 8: NET ENROLLMENT RATE

province	Level of education	years										
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Aceh	Primary	98.05	98.67	*	98.88	98.95	99.03	99.07	99.19	98.99	99.36	99.66
	Junior	92.89	94.99	*	93.83	94.06	94.15	94.31	94.99	94.37	94.34	95.23
	Senior	72.25	73.31	*	72.43	72.79	72.73	72.74	73.53	72.14	74.59	74.70
	college	17.12	18.68	*	20.95	23.60	23.13	22.82	24.1	27.68	28.55	29.18
Sumatera Utara	Primary	98.25	97.64	98.04	98.19	98.95	99.03	99.07	99.19	98.99	98.60	99.03
	Junior	88.51	90.28	90.55	90.62	94.06	94.15	94.31	94.99	94.37	90.83	92.11
	Senior	63.19	66.42	65.77	65.09	72.79	72.73	72.74	73.53	72.14	69.86	71.24
	college	12.20	11.75	13.12	13.22	23.60	23.13	22.82	24.11	27.68	17.27	21.81
Sumatera Barat.	Primary	96.94	97.11	97.04	97.71	97.94	98.36	98.55	98.75	97.68	98.34	98.81
	Junior	86.70	88.73	89.24	88.45	91.14	91.83	91.58	92.09	88.28	90.50	92.20
	Senior	63.23	66.41	67.12	64.29	63.92	64.11	63.92	64.54	65.41	71.24	74.10
	college	20.77	22.33	21.40	18.29	13.44	13.77	13.14	14.02	15.34	27.55	30.66
Riau	Primary	97.03	97.27	98.27	97.68	97.88	98.31	98.95	99.35	97.61	98.13	98.59
	Junior	87.57	89.29	90.64	91.15	91.34	91.10	91.26	92.16	96.57	88.01	90.35
	Senior	60.42	60.03	62.39	62.87	64.26	64.62	64.62	66.56	68.17	66.55	69.79
	college	9.67	10.20	12.61	12.33	7.58	10.99	7.07	8.64	9.67	15.81	22.04
Keplauan Riau	Primary	*	*	97.45	97.78	97.28	97.59	98.11	98.27	98.27	98.44	98.63
	Junior	*	*	88.30	90.36	84.53	84.78	85.10	85.56	88.08	94.93	96.67
	Senior	*	*	58.05	63.24	55.39	55.72	55.13	56.11	59.99	70.94	73.66
	college	*	*	9.02	5.96	12.31	12.77	11.83	12.81	15.64	10.14	14.85
Jambi	Primary	97.28	97.06	97.84	97.20	97.55	97.88	97.80	98.00	97.95	98.70	98.81
	Junior	82.61	86.23	84.13	83.77	84.26	84.55	84.65	85.41	86.45	91.11	91.96
	Senior	52.89	55.54	53.39	53.75	54.43	54.27	54.12	54.79	56.54	59.71	63.97
	college	11.09	9.22	9.39	10.41	12.04	12.30	11.61	12.07	12.75	15.22	20.25
Sumatera Selatan	Primary	96.50	97.24	97.85	96.84	96.30	96.76	96.90	97.10	97.28	98.11	98.57
	Junior	78.65	83.58	86.28	83.43	80.38	79.71	79.98	80.59	84.53	88.75	89.47
	Senior	44.57	51.06	52.70	52.77	46.90	47.31	46.70	47.51	49.92	58.66	60.74
	college	10.08	11.46	11.32	10.35	8.41	8.75	8.25	8.90	8.63	13.91	14.08
Kep. Bangka Belitung	Primary	96.07	95.30	96.81	96.26	98.25	98.38	98.53	98.67	98.41	97.72	98.13

	Junior	74.17	77.25	78.05	79.04	86.93	87.42	87.47	88.25	90.97	84.09	84.63
	Senior	44.19	48.22	50.86	44.95	59.00	58.64	58.80	59.63	62.86	52.02	56.42
	college	3.88	4.73	8.93	6.07	16.46	16.07	15.97	16.95	17.02	9.30	9.46
Bengkulu	Primary	96.28	97.43	97.15	98.10	97.90	98.26	98.53	98.71	97.94	98.97	99.50
	Junior	78.93	61.88	83.05	86.75	84.99	85.10	85.92	86.62	86.39	93.22	93.16
	Senior	52.38	87.83	57.62	58.77	50.02	50.69	50.44	51.34	56.24	67.76	71.21
	college	13.39	11.83	13.96	14.77	8.71	9.06	8.97	9.82	10.39	19.64	24.12
Lampung	Primary	96.07	96.69	96.95	97.77	98.73	98.82	99.06	99.16	98.14	98.64	99.03
	Junior	83.43	84.35	86.27	84.14	90.53	90.53	90.75	91.45	92.38	90.00	91.06
	Senior	48.31	48.19	51.14	49.47	61.49	61.86	61.53	61.99	59.72	60.43	64.41
	college	8.82	7.65	9.76	7.26	17.18	17.75	17.23	17.91	17.83	11.90	16.19
DKI Jakarta	Primary	98.21	98.40	98.67	98.46	97.84	98.24	98.22	98.29	97.89	99.04	99.40
	Junior	91.81	92.63	92.00	90.16	80.36	81.00	81.85	82.73	85.97	94.07	95.47
	Senior	71.57	70.36	65.81	60.26	47.57	47.58	47.06	47.82	50.36	61.87	66.09
	college	18.27	20.34	18.92	15.84	10.20	10.54	10.01	10.38	11.15	18.02	19.65
Jawa Barat	Primary	96.27	96.50	96.28	97.64	97.55	97.75	97.85	98.01	98.22	98.36	98.85
	Junior	75.86	78.16	76.44	79.70	81.08	81.28	80.86	81.70	88.47	88.68	89.40
	Senior	43.53	45.08	45.51	45.62	51.05	50.35	49.96	50.90	56.01	56.30	59.98
	college	9.19	9.29	9.61	8.88	11.34	11.66	11.07	11.70	13.56	12.25	17.34
Banten	Primary	96.80	96.88	97.09	97.36	98.67	98.83	98.80	98.95	98.61	98.26	98.60
	Junior	79.11	81.89	78.98	80.35	84.03	84.27	84.59	85.33	88.38	91.10	91.32
	Senior	45.68	51.39	51.87	48.65	53.20	53.36	52.84	53.72	54.76	59.80	62.89
	college	10.21	11.05	10.98	10.36	10.28	10.55	10.20	11.34	11.51	15.97	18.08
Jawa Tengah	Primary	97.90	98.04	98.34	98.47	99.29	99.62	99.65	99.69	99.43	98.87	99.28
	Junior	82.36	84.30	87.79	83.41	92.62	92.91	93.42	94.02	97.66	89.59	90.73
	Senior	48.13	51.02	52.97	51.31	71.82	72.46	72.26	73.06	75.60	58.65	59.88
	college	10.06	10.45	10.84	9.26	43.38	43.47	43.30	44.03	44.17	11.83	17.42
DI Yogyakarta	Primary	98.67	98.77	99.05	99.35	98.39	98.63	98.57	98.74	98.27	99.77	99.96
	Junior	95.10	95.02	95.16	90.55	86.40	86.54	88.00	88.82	90.11	98.35	96.79
	Senior	73.58	75.96	74.86	71.18	58.26	58.14	58.44	59.39	58.54	80.04	81.41
	college	42.29	47.00	41.21	39.71	11.50	11.63	11.51	12.43	12.69	44.69	45.86
JawaTimur	Primary	97.18	97.43	97.96	98.22	98.36	98.45	98.52	98.69	98.38	98.65	99.05
	Junior	81.99	84.63	87.56	85.99	87.59	88.07	88.43	89.26	92.36	91.62	92.83
	Senior	51.71	52.80	55.63	56.79	63.38	63.36	64.59	65.22	68.22	61.87	62.32
	college	11.13	11.59	11.44	10.28	13.10	13.53	13.84	15.31	18.93	14.59	19.49
Bali	Primary	97.29	98.11	97.41	98.27	97.07	97.25	98.12	98.26	97.85	99.18	99.26

	Junior	86.06	86.36	83.90	87.16	85.24	85.57	85.81	86.52	91.40	95.04	95.90
	Senior	62.02	63.31	61.27	63.21	57.30	57.22	56.92	57.71	60.09	71.44	74.03
	college	13.61	10.75	14.82	10.98	14.84	14.60	14.41	15.39	16.99	18.99	19.84
NTB	Primary	94.72	94.67	96.02	96.75	93.73	93.72	95.99	96.49	96.03	98.18	98.20
	Junior	72.27	76.47	81.62	84.84	78.11	77.76	79.28	81.24	86.01	91.25	92.23
	Senior	42.97	47.26	51.22	55.62	49.58	49.67	47.95	49.22	60.06	61.07	66.40
	college	6.48	10.05	11.39	12.92	14.42	14.38	12.56	14.44	17.40	17.82	22.64
NTT	Primary	90.77	93.23	94.30	94.00	96.71	97.08	96.94	97.04	96.28	96.15	97.34
	Junior	71.65	77.49	75.74	77.24	84.08	84.50	83.92	84.48	83.94	88.62	89.43
	Senior	37.79	45.35	43.69	46.51	50.17	50.73	49.83	50.35	50.17	61.92	64.81
	college	9.29	9.98	10.69	11.62	11.03	10.62	10.17	11.43	11.94	17.92	22.88
Kalimantan Barat	Primary	92.05	95.42	95.50	96.53	98.31	98.45	98.50	98.70	98.12	96.66	96.91
	Junior	81.17	82.91	80.42	83.46	86.47	86.42	86.64	86.83	85.53	85.52	85.94
	Senior	44.95	45.69	47.55	48.55	54.14	53.64	53.65	54.50	55.75	55.13	58.80
	college	9.83	8.96	8.68	9.30	10.49	11.15	10.16	11.06	13.05	14.17	19.27
Kalimantan Tengah	Primary	97.74	98.42	98.48	98.33	97.21	97.48	97.59	97.90	97.75	98.62	99.05
	Junior	85.24	88.41	91.14	86.08	78.99	79.68	79.83	80.59	83.05	85.68	86.14
	Senior	50.29	50.35	52.66	53.39	50.01	50.30	49.43	50.23	53.89	55.06	59.18
	college	9.46	8.12	9.67	9.32	11.21	11.40	11.20	12.18	13.62	14.04	19.89
Kalimantan Selatan	Primary	96.34	96.68	97.86	96.36	98.12	98.35	98.42	98.68	98.62	97.85	98.76
	Junior	73.47	78.56	75.79	78.41	90.62	90.78	91.55	92.49	92.40	85.62	86.60
	Senior	41.44	47.52	46.24	48.75	64.58	64.71	64.07	64.76	69.10	58.16	60.19
	college	9.57	8.16	10.32	9.50	14.41	14.43	13.97	14.88	16.92	16.48	16.95
Kalimantan Timur	Primary	96.65	97.66	97.82	97.51	97.55	97.87	97.82	98.30	98.02	99.12	99.46
	Junior	88.60	90.70	89.11	89.91	88.14	88.46	88.40	89.06	87.59	96.32	96.49
	Senior	61.30	64.97	61.75	64.03	56.98	56.84	56.56	56.75	60.77	71.73	73.92
	college	11.69	12.56	11.97	13.10	12.09	12.80	12.07	13.30	15.16	20.33	25.04
Sulawesi Utara	Primary	97.38	96.68	98.15	97.37	93.62	94.23	96.55	96.86	96.91	98.16	98.92
	Junior	83.91	85.41	87.96	88.01	77.91	77.68	80.94	81.78	83.75	88.34	90.48
	Senior	54.32	60.70	57.18	55.84	50.30	50.17	48.77	49.61	58.14	65.28	66.88
	college	13.10	14.30	10.50	11.15	12.82	13.01	11.10	12.87	19.85	16.12	16.36
Gorontalo	Primary	90.58	91.53	92.95	93.39	96.82	97.16	97.22	97.52	97.00	97.74	97.90
	Junior	66.86	67.00	69.34	75.84	80.96	81.13	83.41	84.17	85.32	82.91	86.23

	Junior	81.01	83.49	84.02	84.08	84.65	84.89	85.47	86.24	87.99	89.76	90.81
	Senior	50.97	53.48	53.86	53.92	55.49	55.50	55.16	56.01	57.95	61.49	63.84
	college	11.71	12.07	12.23	11.38	13.08	13.29	12.72	13.77	14.82	16.05	20.14

ATTACHMENT 9 : INCOME RATE EACH PROVINCE DATA

province	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Aceh	425.0	550.0	620.0	820.0	850.0	1,000	1,200	1,300	1,350	1,400.0	1,550.0	1,750.0
Sumatera Utara	505.0	537.0	600.0	737.8	761.0	822.2	905.0	965.0	1,035	1,200.0	1,375.0	1,505.9
Sumatera Barat	435.0	480.0	540.0	650.0	750.0	800.0	880.0	950.0	1,055	1,150.0	1,350.0	1,490.0
Riau	437.5	476.9	551.5	637.0	710.0	800.0	901.6	1,016	1,120	1,238.0	1,400.0	1,700.0
Jambi	390.0	425.0	485.0	563.0	658.0	724.0	800.0	900.0	1,028	1,142.5	1,300.0	1,502.3
Sumatera Selatan	403.5	460.0	503.7	604.0	753.0	743.0	824.7	927.8	1,048	1,195.2	1,350.0	1,800.0
Bengkulu	330.0	363.0	430.0	516.0	644.8	683.5	728.0	780.0	815.0	930.0	1,200.0	1,350.0
Lampung	350.0	377.5	405.0	505.0	555.0	617.0	691.0	767.5	855.0	975.0	1,150.0	n.a
Bangka Belitung	379.5	447.9	560.0	640.0	830.0	813.0	850.0	910.0	1,024	1,110.0	1,265.0	1,640.0
Kepri	n.a	n.a	557.0	760.0	805.0	833.0	892.0	925.0	975.0	1,015.0	1,365.1	1,665.0
DKI Jakarta	631.6	671.6	711.8	819.1	816.1	972.6	1,069.	1,118	1,290	1,529.0	2,200.0	2,441.3
Jawa Barat	320.0	366.5	408.3	447.7	447.7	568.2	628.2	671.5	732.0	n.a	n.a	n.a
Jawa Tengah	340.4	365.0	390.0	450.0	500.0	547.0	575.0	660.0	675.0	n.a	n.a	n.a
DI Yogyakarta	360.0	365.0	400.0	460.0	460.0	586.0	700.0	745.7	808.0	892.7	947.1	n.a
JawaTimur	274.0	310.0	340.0	390.0	448.5	500.0	570.0	630.0	705.0	n.a	n.a	n.a
Banten	475.0	515.0	585.0	661.6	661.5	837.0	917.5	955.3	1,000	1,042.0	1,170.0	1,325.0
Bali	410.0	425.0	447.5	510.0	622.0	682.7	760.0	829.3	890.0	967.5	1,181.0	1,321.0
NTB	375.0	412.5	475.0	550.0	550.0	730.0	832.5	890.8	950.0	1,000.0	1,100.0	1,210.0
NTT	350.0	400.0	450.0	550.0	600.0	650.0	725.0	800.0	850.0	925.0	1,010.0	n.a
Kalimantan Barat	400.0	420.0	445.2	512.0	560.0	645.0	705.0	741.0	802.5	900.0	1,060.0	1,380.0
Kalimantan Tengah	425.0	482.5	523.7	634.3	666.0	765.9	873.1	986.5	1,134	1,225.0	1,553.1	1,724.0

Kalimantan Selatan	425.0	482.2	536.3	629.0	745.0	825.0	930.0	1,024	1,126	1,327.4	1,337.5	1,620.0
Kalimantan Timur	540.0	572.7	600.0	684.0	766.5	815.0	935.0	1,002	1,084	1,177.0	1,752.1	1,886.3
Sulawesi Utara	495.0	545.0	600.0	713.5	750.0	845.0	929.5	990.0	1,050	1,250.0	1,550.0	1,900.0
Sulawesi Tengah	410.0	450.0	490.0	575.0	615.0	670.0	720.0	777.5	827.5	885.0	995.0	1,250.0
Sulawesi Selatan	415.0	455.0	510.0	612.0	673.2	740.5	905.0	1,000	1,100	1,200.0	1,440.0	1,800.0
Sulawesi Tenggara	390.0	470.0	498.6	573.4	640.0	700.0	770.0	860.0	930.0	1,032.3	1,125.2	1,400.0
Gorontalo	410.0	430.0	435.0	527.0	560.0	600.0	675.0	710.0	762.5	837.5	1,175.0	1,325.0
Sulawesi Barat	n.a	n.a	n.a	612.0	691.5	760.5	909.4	944.2	1,006	1,127.0	1,165.0	n.a
Maluku	370.0	450.0	500.0	575.0	635.0	700.0	775.0	840.0	900.0	975.0	1,275.0	1,415.0
Maluku Utara	370.0	400.0	440.0	528.0	660.0	700.0	770.0	847.0	889.4	960.5	1,200.6	n.a
Papua Barat	n.a	n.a	n.a	n.a	n.a	n.a	n.a	1,210	1,410	1,450.0	1,720.0	n.a
Papua	600.0	650.0	700.0	822.5	987.0	1,105	1,216	1,316	1,403	1,515.0	1,710.0	1,900.0
RATA-RATA INDONESIA	**414.7**	**458.5**	**507.7**	**602.2**	**667.9**	**743.2**	**830.7**	**908.8**	**988.8**	**1,119.1**	**1,332.4**	**1,595.9**